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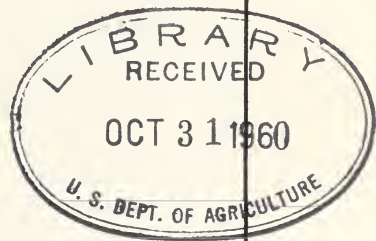
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REPORT
FROM THE
UNITED STATES
DEPARTMENT OF AGRICULTURE
AND A STATEMENT FROM THE
LAND GRANT COLLEGES IRM-1
ADVISORY COMMITTEE
ON
FARM PRICE AND INCOME PROJECTIONS,
1960-65,
UNDER CONDITIONS APPROXIMATING FREE
PRODUCTION AND MARKETING OF
AGRICULTURAL COMMODITIES



PRESENTED BY MR. ELLENDER



JANUARY 20, 1960.—Ordered to be printed

UNITED STATES
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WASHINGTON : 1960



FOREWORD

This report shows that farm prices would fall substantially and production would continue to increase by about 2 percent per year if all acreage controls (except tobacco) were removed and price supports were at levels which would permit an orderly reduction of currently excessive stocks of storable agricultural commodities over a 7- to 10-year period.

Increased marketings would result in average farm prices of about 90 cents per bushel for wheat; 80 cents a bushel for corn, with other feed grain prices in proportion; \$3 per hundredweight for rice; 25 cents a pound for cotton; \$15 per 100 pounds for beef cattle; \$11.20 per 100 pounds for hogs; \$3.60 per 100 pounds for milk at wholesale; 29 cents a dozen for eggs; and 15 cents a pound for broilers. Production and prices are shown in tables 6 and 7 of the Department's report.

As estimated by the Advisory Committee realized net farm income would drop to \$7 billion by 1965, about 46 percent below the 1958 level.

BACKGROUND

On May 18, 1959, I requested the cooperation of the Secretary of Agriculture in the preparation of a study of probable market supplies and prices of the major farm products and the probable aggregate farm output and level of farm prices for the period 1960-65, assuming all production controls except those on tobacco were removed, and assuming price supports were maintained at levels which would permit an orderly reduction, over a 7- to 10-year period, of the current excessive stocks of storable farm products. In addition, I asked Professor Halvorson, chairman of the Interregional Technical Committee of the Land-Grant Colleges, IRM-1, on National Policies for Agricultural Prices and Income, that his committee, or a subcommittee thereof appointed by him, assist and advise with the Department technicians in the preparation of the study. Letters accepting the responsibility as well as letters forwarding the reports follow.

The Advisory Committee composed of Professors Halvorson, Wisconsin, chairman; George Brandow, Pennsylvania; Willard Cochrane, Minnesota; Maurice Kelso, Arizona; James Plaxico, Oklahoma; and John Schnittker, Kansas, after reviewing a progress report prepared by the technical staff of the Department of Agriculture, thought it desirable to carry the Department estimates to a net income basis and apply the results of the projections to a few representative farming situations. This they have done. In addition, they reviewed the final report submitted by the Department.

This report therefore consists of a statement by the Advisory Committee relating to the Department report and the Department report itself.

As chairman of the Senate Committee on Agriculture, I wish to thank the Secretary of Agriculture, the technical staff in the Department who prepared the report, and the Advisory Committee for their splendid cooperation in this project.

ALLEN J. ELLENDER,
Chairman, Senate Committee on Agriculture and Forestry.

LETTER OF TRANSMITTAL TO THE CHAIRMAN

JANUARY 20, 1960.

Hon. ALLEN J. ELLENDER,
Chairman, Committee on Agriculture and Forestry,
U.S. Senate, Washington, D.C.

DEAR SENATOR ELLENDER: Pursuant to your request, transmitted herewith is the Department report requested in your letter of May 18, 1959, to the Secretary of Agriculture. Transmitted also is a statement from the Advisory Committee in accordance with your request to Prof. Harlow Halvorson, chairman of the Interregional Technical Committee on National Policies for Agricultural Prices and Income. The staff received full cooperation from all concerned.

HENRY J. CASSO, *Staff Economist.*

LETTER TO SECRETARY OF AGRICULTURE

MAY 18, 1959.

HON. EZRA T. BENSON,
Secretary of Agriculture,
Department of Agriculture, Washington, D.C.

DEAR MR. SECRETARY: Our committee is in need of an objective report on probable market supplies and prices for the major farm products, and the probable aggregate farm output and level of farm prices for the period 1960-65, assuming all production controls except those on tobacco were removed, and assuming price supports were maintained at levels which would permit an orderly reduction, over a 7- to 10-year period, in the current excessive stocks of storable farm products. Such a report is urgently needed, not only by the members of our committee but also by all leaders interested in the welfare of agricultural producers.

I am asking Mr. Henry Casso of our committee staff and Dr. Walter Wilcox of the Legislative Reference Service, Library of Congress, to take the leadership in preparing such a report. I am writing you to request the cooperation of your technical staff in developing the materials and analyses needed for a comprehensive report of this character. We hope the report will be useful as a basic reference for all farm organizations and commodity groups regardless of the particular legislative proposals they may be sponsoring.

In order to assure that the study will be as broadly based, and have as wide an acceptance as possible, I am asking the Interregional Committee of the Land-Grant Colleges, IRM-1, Interregional Technical Committee—National Policies for Agricultural Prices and Income, or a subcommittee appointed by its chairman to act in an advisory capacity with members of your staff, Mr. Casso and Dr. Wilcox in planning and carrying forward the studies necessary for such a report by the end of this calendar year.

I would appreciate an early reply indicating the person or persons on your technical staff who will be designated to act in a liaison capacity with Mr. Casso, Dr. Wilcox and the Land-Grant College Committee in planning and carrying forward the necessary studies.

With kindest personal regards, I am

Sincerely yours,

ALLEN J. ELLENDER, *Chairman.*

LETTER TO CHAIRMAN, INTERREGIONAL TECHNICAL COMMITTEE

MAY 18, 1959.

Prof. HARLOW HALVORSON,
*Chairman, Interregional Technical Committee, National Policies for
Agricultural Prices and Income, Department of Agricultural
Economics, University of Wisconsin, Madison, Wis.*

DEAR PROFESSOR HALVORSON: Attached is a copy of a letter I have written to Secretary Benson regarding farm price and supply analyses for the period 1960-65 which our committee would like to have completed this calendar year.

We desire this study to be as objective as possible and would be happy if your committee could take complete responsibility for it. However, I am advised that it is not likely that your committee could complete such a comprehensive study within the time period desired. With this in mind I would like to request the Interregional Technical Committee—IRM-1 National Policies for Agricultural Prices and Income, or a subcommittee which you might appoint, to act in an advisory capacity with Mr. Casso, Dr. Wilcox and members of the technical staff of the Department of Agriculture.

Mr. Casso and Dr. Wilcox will be glad to work out mutually satisfactory arrangements, assuring that we can take the fullest advantage of advisory counsel of your committee within its financial budget.

Sincerely yours,

ALLEN J. ELLENDER, *Chairman.*

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LETTER FROM ACTING SECRETARY OF AGRICULTURE

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, December 18, 1959.

HON. ALLEN J. ELLENDER,
U.S. Senate.

DEAR SENATOR ELLENDER: In a letter dated May 18, 1959, you requested the cooperation of the technical staff of the Department in developing material and analyses needed for preparing an objective report on probable market supplies and prices for the major farm products and the probable aggregate farm output and level of farm prices for the period 1960-65, assuming removal of all production controls except those on tobacco and assuming price supports were maintained at levels which would permit an orderly reduction over a 7- to 10-year period in the current excessive stocks of storable farm products.

Projections prepared on the basis of the assumptions you outlined are transmitted herewith.

The projections have been prepared by career technicians of the Department in as objective a manner as the available material and methods permit. Because of the nature of your request, we are transmitting the material as prepared by the technicians and have refrained from reviewing it from a policy standpoint.

It should be emphasized that these are projections of the probable situation under the specific assumptions that you supplied and, hence, should be interpreted and used as projections, not as forecasts. Furthermore, it should be clear that neither these projections nor the leading assumptions used should be considered as either an analysis or an endorsement of any proposed farm program.

In any publication of the projections, we feel it would be to the best interest of all concerned that the material submitted by the Department be clearly identified as such. Similarly, the source of any other material included in such a publication should be clearly identified.

There were several discussions with Mr. Henry Casso of your committee staff and Dr. Walter Wilcox of the Library of Congress during the development of these projections. A preliminary draft of the material was also made available to a special subcommittee of technicians from the land-grant colleges appointed by Dr. Harlow Halvorson, chairman of the Interregional Technical Committee on National Policies for Agricultural Prices and Income. Department representatives met with the subcommittee to discuss their suggestions on the preliminary draft.

We trust that these publications will serve as useful background information to you and your committee.

Sincerely yours,

TRUE D. MORSE, *Acting Secretary.*

UNITED STATES DEPARTMENT OF AGRICULTURE

Projections of Production and Prices of Farm Products for 1960-65 According to Specified Assumptions

SUMMARY

Projections of probable market supplies and prices for the major farm commodities for the period 1960-65 presented here have been prepared at the request of Senator Allen J. Ellender, chairman of the Senate Committee on Agriculture and Forestry. Senator Ellender's request specified that the projections should be made under assumptions that all production controls except those on tobacco were removed and price supports were maintained at levels which would permit an orderly reduction over a 7- to 10-year period in the currently excessive stocks of storable farm commodities.

Under these assumed conditions, total farm output would increase to 137 percent of the 1947-49 average by 1965. This would be 20 percent higher than the 1955-57 average of 114 percent. Compared to current indications for 1959, the projected increase would be around 10 percent. The increase above 1955-57 in output of livestock would be 25 percent and that for crops would be 16 percent. The greater increase in livestock output would result from favorable livestock-feed price ratios. Livestock output at the projected level would reduce feed grain stocks by 7 million tons per year and require the use of substantial quantities of wheat for feed.

The projected population figure for 1965 is 195.7 million, an increase of 16 percent from 1955-57. Per capita disposable income at \$2,120 in 1965 is 22 percent above 1955-57.

Projected cash receipts from farm marketings at \$30.6 billion would be 2 percent higher than the 1955-57 average. Cash receipts from livestock and products at \$17.7 billion would be 7 percent higher, and those from crops at \$12.9 billion would be 4 percent lower.

Although the projected cash receipts figure is a little higher than the 1955-57 figure, it is 9 percent lower than the \$33.6 billion figure for 1958. In that year, a number of unusual factors contributed to an increase in cash receipts.

The projected index of prices received by farmers would be 193 for 1965, 17 percent below the 1955-57 average.

At 184, prices received for crops would be down a little more than the total index, and prices received for livestock and products at 200 would be down somewhat less than the total.

The projected increase in farm output would imply a per capita food consumption index of about 108 (1947-49=100) for 1965, about 5 percent higher than in 1955-57. Per capita consumption of food livestock products would be 8 percent higher with meat, including poultry meat, accounting for all of the increase. Per capita food use of crops would be practically the same as the 1955-57 average.

These projections are indications of the probable situation under the assumptions specified by Senator Ellender. Neither the analysis nor the leading assumptions should be regarded as forecasts or as an endorsement or an analysis of any proposed farm program.

INTRODUCTION

These projections were prepared in response to a request from Senator Allen J. Ellender, chairman of the Senate Committee on Agriculture and Forestry. The Senator's letter to the Secretary of Agriculture cites the committee's "need for an objective report on probable market supplies and prices for the major farm products and probable aggregate farm output and level of farm prices for the period 1960-65, assuming all production controls except those on tobacco were removed, and assuming price supports were maintained at levels which would permit an orderly reduction over a 7- to 10-year period in the currently excessive stocks of storable farm products".

The Senator's letter requested the cooperation of the technical staff of the Department of Agriculture in developing the material and analyses needed for such a comprehensive report.

Senator Ellender's letter also stated that he was asking IRM-I, Interregional Technical Committee—National Policies for Agricultural Prices and Income or a subcommittee appointed by the Chairman to act in an advisory capacity with the members of the Department staff, Mr. Casso of the Senate committee staff and Mr. Wilcox, Library of Congress, in planning and carrying forward the studies necessary to prepare the material to meet the Senator's request.

It should be clear from the above that neither these projections nor the leading assumptions used should be considered as either an endorsement or an analysis of any proposed farm program. To the best of our knowledge and belief, no one has suggested a farm program in line with the conditions assumed in making these projections.

Furthermore, these are projections of the probable situation under specific assumptions and not forecasts and should be so interpreted and used.

The projections are based on a review of longrun statistical relationships among supply, prices, and consumption together with the judgment of specialists in the respective fields. The amount of statistical information and knowledge of economic relationships differs widely among commodities. Hence, the projections are not of uniform reliability among individual commodities. The production response under competitive conditions of crops that have been under control for long periods are particularly difficult to estimate. Unfortunately, this applies to two of the most important and controversial crops, cotton and wheat.

Furthermore, margins of error are especially wide for crops whose acreage and production are normally rather small.

A series of projections for agriculture as a whole is inherently more difficult and more subject to error than projections for a single commodity or for a few related commodities. In making projections for a single commodity, one can proceed on the assumption that other segments of the agricultural economy can be held constant. In projections for the entire agricultural economy, this simplifying assumption is precluded. All the interrelations among the various crops, as

well as the interrelationships among the feed crops and all the livestock items, must be considered. It should be obvious that this not only makes the analysis far more complex, but multiplies the possibility of error for individual commodity projections.

Despite the difficulties involved in making projections for agriculture as a whole, projections of commodity aggregates tend to be more reliable than those for individual commodities, and larger aggregates tend to be more reliable than small ones. Thus, it normally would be expected that projections for a large crop, such as corn, would be subject to a smaller percentage of error than for a small crop. For example, projections for grain as a total would be expected to be more accurate than the estimate for a single grain. This is particularly true of crops that are close substitutes, such as feed grains, since more emphasis was placed on the projection of the group than on the individual crops. Furthermore, projections for the total of all crops would be more accurate than those for subaggregates, such as food grains and feed grains.

GENERAL ASSUMPTIONS

For the economy as a whole, it is assumed that upward trends in population, productivity, and real income per capita will continue; and that retail prices and prices paid by farmers will not rise significantly above current levels. The specific projections corresponding to these assumptions are shown in the following table.

Overall economic assumptions

Year	Population ¹	Disposable personal income ²	Per capita disposable income ²	Consumer price index 1947-49=100	Parity index 1910-14=100
	<i>Millions</i>	<i>Billions of dollars</i>	<i>Dollars</i>	<i>Percent</i>	<i>Percent</i>
1955-57 average.....	168.2	291.7	1,733	117.0	280
1958.....	174.1	316.5	1,818	123.5	293
1959 ³	177.0	333.4	1,884	124.0	299
Projections:					
1960.....	180.1	345.8	1,920	124.0	300
1961.....	183.2	358.6	1,957	124.0	300
1962.....	186.2	371.9	1,997	124.0	300
1963.....	189.3	385.7	2,038	124.0	300
1964.....	192.5	400.0	2,078	124.0	300
1965.....	195.7	414.8	2,120	124.0	300

¹ Total population including Armed Forces overseas. Figures for 1960 and 1965 census series II projections. Data for other years, except 1958, are interpolations based on Census Bureau projections.

² Income projections assume a constant retail price level 124 percent of 1947-49 average.

³ Preliminary.

It is assumed that there will be no major change in the international situation.

A word of comment concerning the assumptions for retail prices and prices paid by farmers is in order. These are assumptions, not forecasts. In making projections of this kind, it is desirable to limit the assumptions to those that are essential to the required projections. An assumption of a gradual increase in retail prices over the next several years might appear more realistic to some analysts. However, such an assumption would probably not significantly affect these projections since our methods are not sufficiently precise to take account of the differential effects of gradual changes in the general

level of retail prices. Also, such an assumption could result in considerable disagreement as to the rate of change assumed, which would not be relevant to the overall problem. It should be noted, however, that in view of the lower prices projected for farm commodities, the assumption of a constant price level implies some increase in prices of nonfarm commodities.

AGRICULTURAL ASSUMPTIONS AND APPROACHES

Acreages and programs

As specified in the original request, the projections assume the elimination of acreage and production controls for all major commodities except tobacco. In general, price support is assumed at levels which would permit an orderly liquidation of current excessive stocks over a 7- to 10-year period. The assumptions for wheat and cotton were modified by an additional assumption that the orderly liquidation of stocks could be handled through special programs, such as Public Law 480. However, Public Law 480 would by no means be limited to stock liquidation. Thus, the price support level assumed is one that would avoid further accumulation of stocks. In addition, programs such as section 32, special milk, school lunch, Sugar Act, Wool Act, marketing agreements and orders are assumed to continue in effect without significant change.

Certain actions with respect to price supports and/or acreage allotments in 1960 which conflict with the assumptions for these projections are disregarded. This includes the marketing quotas for wheat, cotton, rice, peanuts, and tobacco which have already been approved by growers and the minimum price support already announced for wheat.

A conservation reserve program of 30 million acres is assumed, an increase of 8 million acres over 1959. This assumption implies appropriations and authorizations at about current levels and some reduction in payment per acre associated with the lower prices of farm products. Estimates of normal use of the land in conservation reserve in 1959 were used in projection of the effects of the expansion in the program during the 1960-65 period. Feed grains, wheat, hay, cropland pasture, crop failure, and fallow represented the major normal use of cropland reserve acreages in 1959.

The total acreage of cropland and pasture was assumed to remain at the 1959 level during the 1960-65 period. It was assumed that in the first year the elimination of allotments on wheat and cotton, together with the increased soil bank, would result in reduced fallow and idle acreages. Consequently, the total land used for crops and the soil bank would increase.

After the first year, however, the lower price level would encourage reductions in harvested cropland. While the acreage adjustments to the lower price levels would not be completed by 1965, some increase in idle and fallow would be expected. Because of the problems inherent in resource adjustment and the difficulties of shifting land use in a relatively short period, the decrease in harvested cropland was projected at about 1 million acres per year. This general acreage framework is indicated in table 2.

Projection of individual crop acreages were made by means of a series of approximations. Factors considered included suspension of

allotments on wheat and cotton and conservation reserve expansion, prospective price-cost relations, the livestock-feed balance, and recent trends. The evaluation of these factors necessarily involved large elements of judgment.

Yields

Yield projections for the period 1960-65, developed in cooperation with ARS natural scientists, were used as a general framework for the yield estimates of major crops. The yield projections include the increases that agricultural research scientists expect to result from further application of known improvements. The original yield projections were made in the general context of current acreages and price-cost relations.¹ It was felt, however, that in a period of only 5 years, effects of lower price-cost relationships on yields would be minor because of the continued profitability from the standpoint of the individual farmer of marginal increases in the use of fertilizer, improved varieties, and other yield-increasing techniques that are presently available. Acreage shifts are likely to be of particular significance to yields of cotton and grain sorghums.

Trends in yield per acre of feed grains, as indicated by the projections, were expected to continue to increase in the years 1960-65. But the annual rates of increase in the next 5 years would be less than in the years since 1940. Further, the yields of corn and grain sorghum in 1958 and 1959 were apparently significantly above the indicated trends because of favorable weather.

Yield increases in corn will reflect to a large extent the increases in fertilizer and associated practices. Corn yields in 1965 would be slightly below the record yields indicated for 1958 and 1959. Yields of sorghum grain are expected to increase chiefly as the result of additional plantings of improved hybrid varieties. However, the projected rate of increase in grain sorghums is considerably less than in recent years.

Trends in hay yields are expected to increase gradually during the 1960-65 period with improvements in production practices and types of hay. Hay production by 1965 might be at approximately the record level achieved in 1958. Despite wide fluctuations, the long-term trend in the total feed consumed from pasture has been upward as pastures have been improved. This trend is expected to continue. Total feed units available from pasture by 1965 may be about 5 percent above the 1957-58 feeding year.

Wheat and cotton yields were projected to increase gradually during the period at about the same rate as the long-term upward trend in yields for these crops.

Average or normal weather must be assumed in projections of this nature, since there is no prior basis for any other assumption. In effect, weather is held constant throughout the projection period, with any above average years approximately balanced by below average years. A run of several years, either above or below average, during the projection period could result in substantially different results.

Similarly, the projections for hogs are primarily in terms of trend values, rather than projections of a cyclical pattern. For given years

¹ A detailed discussion of these projections is contained in a report, "Wheat, Feed, and Livestock Production Projections" by R. P. Christensen, S. E. Johnson, and R. V. Bowman, FERD, ARS which is in process of publication.

in the period, cyclical influences might well result in hog production either higher or lower than the trend value for that year. Attempting to project cyclical as well as trend values for specific years would imply a much higher degree of precision in the available methods than actually exists. Furthermore, the emphasis here is on the relative situation during the projection period, rather than on either the situation in a given year or the change from one year to the next.

EXPORTS

The projections of exports of principal agricultural commodities to 1965 take into account the effects of the assumed elimination of acreage controls and reduction of price supports. Many other factors not fully taken into account in these projections will influence the amounts of U.S. agricultural commodities foreign countries may be willing or able to import. In some cases, these factors could lead to a substantially different level of exports of specific commodities than the levels projected here.

For example, in recent years, nearly all wheat-importing countries have adopted price support or other forms of incentives to stimulate increased domestic production. Other measures have been taken to regulate imports, including tariffs, import quotas, compulsory utilization of fixed percentages of homegrown grain, subsidies to local flour millers, and control over bread grain prices. Importing countries have taken these steps partly because of the desire for a greater degree of self-sufficiency in foodstuffs and partly to reduce foreign exchange expenditures and to increase farmers' incomes.

In view of the extensive regulation of the world wheat trade, it may well be that even a marked reduction in prices would expand U.S. wheat exports by only a limited amount. Furthermore, the reaction of other wheat-exporting countries who may be more dependent on wheat for their foreign exchange earnings than the United States could have a significant effect on U.S. exports of wheat.

For commodities not produced so extensively in importing countries, a reduction in prices possibly could result in an expansion of exports. Prices in line with those projected here for cotton, for example, would enable cotton to compete more successfully with synthetic fibers in manufacture of textiles in foreign countries. They would encourage increased consumption by low income groups and would probably stimulate world trade for cotton textiles.

Lower prices for cotton would also tend to discourage production of cotton in many foreign countries. Countries with a one-crop economy, such as the Sudan, or countries depending largely on cotton exports as an earner of foreign exchange might adopt competitive measures such as reductions in the export price, subsidization of exports, and negotiations of bilateral agreements in order to tie up a larger part of the world's import requirements. An illustration of the latter is the tie-in sale arrangements now used by the Mexican Government which requires exporters of industrial products to Mexico to take a certain share of their payment in the form of cotton.

World trade in feed grains has expanded rapidly in the postwar period and the United States has increased its share of the total trade. With the scarcity of meats from the traditional export countries and the likelihood that the scarcity will increase as their population

expands, European countries are being pinched for an adequate supply of meats to meet their expanding consumer demand. With lower feed prices in the next few years, the United States could probably expand considerably its sales of feed grains to European countries which are the major importers. It is also likely that lower feed grain prices would increase the utilization of these products for food and industrial purposes. This would particularly apply to barley for brewing purposes and barley and grain sorghums for food in some Asian countries.

While the projected marked expansion of livestock production in the United States would result in lower prices for meats and dairy products, it is doubtful if these would be generally competitive in world markets. It is possible, however, that exports of some of the variety meats and other byproducts might be expanded considerably. Expanded livestock production abroad would also increase the outlet for protein feeds and other feed concentrates. Soybean and vegetable oil exports would also be stimulated by lower prices, but the increase in exports of vegetable oil products might be limited by the larger supplies of lard and tallow which would become available.

Exports of other commodities would be difficult to expand, even at lower prices, because of territorial or bilateral trade agreements between exporters and importers. For example, trade agreements between the United Kingdom and several commonwealth territories would make it difficult for the United States to expand trade in the United Kingdom, even with considerable price reductions. This is particularly true of tobacco, meats, and dairy products. Other countries also have bilateral agreements with their normal trading markets and take fixed amounts of agricultural raw materials in exchange for industrial goods. Germany's relationship with Eastern European tobacco growers and numerous barter agreements between countries are examples.

A Public Law 480 program of about the present dollar magnitude is assumed to continue throughout the projection period. Because of the lower price levels projected, such a program would permit the movement of substantially larger quantities than in 1959. There has been no attempt to specify the amounts or even the commodities which might be included in this program. It is probable that the proportions of individual commodities might change somewhat from year to year. The discussion of the commodity projections indicates some of the commodities for which the Public Law 480 program would be an important factor in attaining the projected level of exports.

GENERAL RESULTS

Under the assumed conditions total farm output would increase to 137 percent of the 1947-49 average by 1965. This would be 20 percent higher than the 1955-57 average of 114 percent. Compared to current indications for 1959, the projected increase would be around 10 percent. The increase above 1955-57 in output of livestock would be 25 percent, and that for crops would be 16 percent. The greater increase in livestock output would result from favorable livestock-feed price ratios. Livestock output at the projected level would reduce feed grain stocks by 7 million tons per year and require the use of substantial quantities of wheat for feed.

As indicated earlier, the projected population figure for 1965 is 195.7 million, an increase of 16 percent from 1955-57. Per capita disposable income at \$2,120 in 1965 is 22 percent above 1955-57.

Projected cash receipts from farm marketings at \$30.6 billion would be 2 percent higher than the 1955-57 average. Cash receipts from livestock and products at \$17.7 billion would be 7 percent higher and those from crops at \$12.9 billion would be 4 percent lower.

Although the projected cash receipts figure is a little higher than the 1955-57 figure, it is 9 percent lower than the \$33.6 billion figure for 1958. In that year, a number of unusual factors contributed to an increase in cash receipts.

The projected index of prices received by farmers would be 193 for 1965, 17 percent below the 1955-57 average.

At 184, prices received for crops would be down a little more than the total index, and prices received for livestock and products at 200 would be down somewhat less than the total.

The projected increase in farm output would imply a per capita food consumption index of about 108 (1947-49=100) for 1965, about 5 percent higher than in 1955-57. Per capita consumption of food livestock products would be 8 percent higher with meat, including poultry meat, accounting for all of the increase. Per capita food use of crops would be practically the same as the 1955-57 average.

THE FEED-LIVESTOCK SECTOR

Feed

The projections of feed supplies and consumption are based on assumptions that: (1) Carryover stocks would be reduced over an 8-year period from a level of around 80 million tons on hand at the beginning of the 1960-61 marketing year to around 25 million tons. This would mean a reduction of around 7 million tons annually. (2) Price supports on feed grains would be at levels which would make possible this reduction in stocks, in addition to the utilization of current feed grain production and heavier wheat feeding essential to the reduction of wheat stocks. Studies indicate that a 10 percent reduction in prices is associated with a 4-percent increase in consumption of feed grains. On this basis, the projected price for corn would be around 80 cents per bushel—about 36 percent below the 1955-57 average of \$1.25 per bushel. Prices for the other feed grains are projected at about their normal relationship to corn. (3) Some declines in acreages of oats, barley, and grain sorghums from 1955-57 levels are projected. Some land would be diverted to wheat and cotton from which controls would be removed. Also, some additional land would be diverted from feed crops to the conservation reserve. Corn acreage is projected at a little above the 1955-57 level, since neither corn acreage allotments nor the acreage reserve program would be in effect. Yields are assumed to continue the upward trend, although at a slower rate than recent years. However, yields of feed grains as a group are not expected to average above the very high levels reached in 1958 when yields of each of the four feed grains set new high records. Production at 145.6 million tons in 1965 would be much above the 1955-57 average of 134.7 million tons, but would be much below 1958 and 1959. Exports of feed grains would increase from the current level of about 12 million tons annually to about 15 million tons by 1965.

Little change was projected in pasture or hay acreage. In the aggregate, pasture and hay requirements would be met largely through increased yields and possibly some substitution of grain for forage.

Production of feed grains, plus the assumed 7 million-ton liquidation of feed grain stocks annually, plus the projected increase in feed use of wheat, provides the basis for a substantial increase in livestock output. Total utilization of feed concentrates for 1965, is projected at 167.7 million tons, 25 percent greater than the 1955-57 average. The number of grain consuming animal units would increase to 199.7 million, 23 percent higher than in 1955-57. Concentrates fed per animal unit at 0.84 tons would be higher than the 1955-57 average but lower than the record high rates realized in 1958 and estimated in 1959.

Meat animals

The projected feed prices and supplies provide the basis for projecting production and prices of livestock and livestock products. Projections for hogs assume that output would expand until the supply resulted in a nearly normal hog-corn ratio. The relationship between supplies per person and income spent for pork provided the basis for estimating average hog prices. The resulting farm prices were fairly close to estimates based on postwar elasticities for hogs—a 10-percent gain in pork supplies per person resulting in approximately 22 percent lower hog prices.

By 1965, marketings of hogs are projected to reach 25.1 billion pounds, 42 percent greater than in 1955-57. Prices received for hogs are projected at \$11.20 per 100 pounds for the period 1961-65. This would be nearly 30 percent below the 1955-57 average. Cash receipts from hogs at \$2,810 million for 1965 would be about the same as that average.

Taking account of the projected increase in population, the indicated per capita consumption of pork (excluding lard) would be 75 pounds in 1965. This would be 15 percent above the 1955-57 average.

The projections for cattle and calves are predicated largely on a cyclical expansion in cattle production, with cattle numbers rising to a peak of 113 million by 1964. Characteristic increases in numbers and slaughter were projected as a basis for determining liveweight production, sales, animal units fed, and slaughter. The relationship between per capita income and the supply of beef and veal per person was the primary basis for the price projections.

On this basis, liveweight production of cattle and calves is projected to reach 34,700 million pounds by 1965, 26 percent greater than in 1955-57. Prices received by farmers for cattle would gradually decline from about \$20 per 100 pounds in 1960 to \$15 in 1965. Although this latter figure would be only about 6 percent below the 1955-57 average, it would be only about two-thirds of the 1958 price.

Cash receipts from cattle and calves are projected at \$6.4 billion for 1965, compared with \$5.5 billion in 1955-57 and \$7.4 billion in 1958.

Per capita consumption of beef and veal would reach 103 pounds by 1965, about 10 percent higher than in 1955-57.

Sheep and lamb production was projected to increase about in line with the estimated increase in population. In view of the projected high rate of consumption of other red meats, a small downward adjustment in prices was projected.

Projected total cash receipts from meat animals decline gradually from 1960 to 1965 and at \$9,575 million in the latter year, are 11 percent above 1955-57 but 14 percent below the relatively high figure for 1958.

Per capita consumption of meat (excluding poultry meat) would be 182 pounds for 1965, 12 percent higher than 1955-57.

DAIRY PRODUCTS

The main assumption underlying the projection of milk output is that prices for hogs and beef cattle will average lower, relative to milk prices, than they have in recent years. This results from the cyclical pattern for beef cattle and the tendency to expand hog output to the point that the hog-corn price ratio approaches the long-term average. The projected moderate increase in milk production could be accomplished by increased rate of production per cow without any increase in the number of cows.

The main consideration in projecting the price impact of the increase in production is the current and potential large surplus of milk solid-non-fat. The increase in demand for this component of milk would be insufficient to use up available supplies at present prices before the end of another decade, even with no increase in milk production.

Milk production is projected to increase gradually during the period to a level of 140 billion pounds by 1965. This would be 12 percent above 1955-57.

In the absence of support prices, prices received for milk wholesale are projected at \$3.60 per 100 pounds for the years 1962-65. This would be about 13 percent below both the 1955-57 average and the 1958 price. Prices for milk for manufacturing would be around \$2.60 per 100 pounds.

Interestingly enough, the projected low prices and increase in use of milk solids-nonfat leads to an increase in the utilization of milkfat in products other than butter. Consequently, the projected 1965 price for butterfat is 64 cents per pound, 8 percent higher than in 1955-57.

Projected cash receipts from dairy products increase during the projection period and reach \$4,675 million by 1965, an increase of 5 percent from 1955-57 and a little above 1958.

Per capita consumption of total milk at 704 pounds for 1965 would be less than 1 percent above 1955-57 and around 2 percent above the estimate for 1959.

EGGS AND POULTRY

Projections for eggs and poultry start with feed prices consistent with the projected corn prices. Equilibrium poultry product-feed price ratios were assumed, taking account of the downward trend of recent years. Prices received for poultry items consistent with the projected feed prices and price ratios were calculated and where appropriate, retail prices consistent with these were assumed. Per capita consumption at such prices was projected. The initial consumption data were built around an elasticity of -0.4 or -0.5 , but then were adjusted to allow for the fact that per capita consumption of broilers and eggs show some evidence of approaching a saturation point.

Production of eggs would increase during the projection period, attaining a level of 5,960 million dozen in 1965, nearly a fifth higher

than in 1955-57. Prices received for eggs would stabilize at around 29 cents per dozen in 1964 and 1965. This would be almost 25 percent below 1955-57.

Cash receipts from eggs at \$1,619 million would be 6 percent lower than 1955-57 but 9 percent below the 1958 figure.

Production of broilers and farm chickens would continue to increase. By 1965, production of broilers at 6,434 million pounds would be 57 percent and farm chickens at 1,888 million pounds would be around 20 percent above the average. Prices received for broilers at 15 cents per pound and those for farm chickens at 10 cents per pound would be 29 and 38 percent respectively below 1955-57.

Cash receipts from broilers and chickens combined at \$1,121 million would be 8 percent higher than 1955-57 and little different from 1958.

By 1965, production of turkeys would be 31 percent higher, prices received 27 percent lower than the average, and cash receipts about the same.

Total cash receipts from these poultry items at \$3,057 million would be not greatly different from 1955-57, but significantly below the 1958 figure.

The indicated per capita consumption of chicken for 1965 would be 30.5 pounds and that for turkey would be 6.4 pounds. Compared to 1955-57 per capita consumption of chicken would be up 28 percent and that for turkey up almost 20 percent. Most of the projected increase in per capita consumption of chicken and about half of that for turkey had already occurred by 1959.

TOTAL LIVESTOCK AND FEED

Total cash receipts from livestock and products in 1965 are projected at \$17.7 billion.

Cash receipts from feed grains by 1965 would be about \$1.5 billion, 29 percent below 1955-57.

Cash receipts from livestock and products plus feed grains at \$19.2 billion would be 3 percent above 1955-57 but 12 percent below 1958.

Projected per capita consumption of meat, including poultry meat, reaches 219 pounds by 1965. This compares with 192 pounds in 1955-57 and 1959 and 186 pounds for 1958.

The index of per capita consumption of food livestock products for 1965 is 114 (1947-49=100), 8 percent higher than in 1955-57. The increase is due to the increase in meat, including poultry, since there is a decline for eggs and no significant change for milk.

THE CROP SECTOR

Wheat

Under the assumption of no acreage controls, the acreage seeded to wheat is projected to increase to 64 million acres in 1960 and then gradually decline to 61 million by 1965. The 61 million acres would be 8 percent above 1955-57 and 4 percent above 1959. These figures are not greatly different from those of other periods when acreage controls were not in effect, such as the 10-year period 1923-32 which preceded the inauguration of production-adjustment and price support programs or those of 1939, 1940, and 1943-45, years in which no marketing quotas were in effect and before the postwar increase in export demand. Harvested acreage is projected at 89 percent of

seeded acreage and ranges from 57 million acres in 1960 to 54.3 acres in 1965. Projected yields per harvested acre increase from 21 bushels in 1960 to 23 in 1965. The resulting production figure for 1965 is 1,250 million bushels, compared with 963 million bushels in 1955-57.

Carryover on July 1, 1960, is now estimated at 1,365 million bushels. The projected carryover increases to a peak of 1,453 million bushels as of July 1, 1961, and then declines rather rapidly to 736 million bushels as of July 1, 1965.

Including projected imports of 8 million bushels in 1960 and 2 million per year thereafter, total supply reaches a peak of 2,668 million bushels in the 1961 crop marketing year and then declines to 1,988 for the 1965 marketing year.

Projected exports increase from 450 million bushels in 1960 to 550 million bushels in 1964 and 1965. This latter figure is 27 percent higher than 1955-57. These export projections assume that at competitive prices, the United States would capture most of the increase in the world export trade in wheat during the 1960-65 period. Total world trade in wheat and flour has been expanding at a rate of about 3 percent annually.

Per capita food use is projected at present levels and total food use increases in line with the increase in population.

Projected use of wheat as livestock feed increases sharply from current levels of 60 million bushels to 385 million bushels in 1965. The increase stems from the projected prices which are based on the price of wheat for export without subsidy. Producer prices at 90 cents per bushel during the 1961-65 period would be competitive with corn and would encourage large-scale feeding of wheat. The projected prices would be less than one-half of the average for 1955-57.

Projected cash receipts from wheat at \$976 million for 1965 would be about 56 percent of the 1955-57 average.

In view of the price and disappearance figures that resulted from the projections themselves, it was unnecessary to utilize the permitted assumption that special export measures would accomplish the specified liquidation of excess stocks. However, the level of exports projected here assumes that a large percentage of these exports would be made under special export measures, such as Public Law 480.

The projected carryover of 444 million bushels as of the end of the 1965 crop marketing year does not appear excessive in the projected framework.

COTTON

Acreage planted to cotton without allotments is projected at 18.7 million for 1960 and 20 million for 1965. The latter figure is 21 percent above the 1955-57 acreage. That acreage was influenced by the acreage reserve program, as well as acreage allotments. These projections of planted acreage are based primarily on statistical relationships between prices received in the previous year and acreage planted.

Harvested acreage is projected at 96 percent of the planted acreage. Continuation of the upward trend in yields is projected and the resulting yield figure for 1965 is 480 pounds per harvested acre. The comparable production figure is 19.2 million bales, 48 percent above 1955-57.

Carryover of cotton at the end of the 1959 marketing season is likely to be around 9 million bales. With disappearance running in the 15- to 20-million-bale range, a carryover of around 6 million bales might be considered an adequate reserve level. Thus, 3 million of the 9-million-bale carryover would be "excessive stocks." Liquidation of excess stocks of 3 million bales over a 10-year period would mean 300,000 bales per year. Our assumptions permit us to assume that this stock liquidation is accomplished by the use of special export measures, such as Public Law 480. It would appear that Public Law 480 could easily handle the disposal of this quantity and this optional assumption is used in the case of cotton.

Domestic mill consumption is projected to increase to 13.3 million bales in 1965, 55 percent above 1955-57. The increase is based on the effect of lower prices on per capita consumption and increased populations.

Exports are projected to reach 6.3 million bales (including 300,000 bales for stock liquidation) by 1965, 21 percent above 1955-57. These projections assume the projected prices would tend to reduce the rate of increase in cotton production in foreign countries, and that the bulk of the increase in world exports of cotton would come from United States supplies.

Projected prices received for cotton for the 1960-65 period range from 24.50 to 27.50 cents per pound, compared with an average of 31.22 cents for 1955-57.

By 1965, projected cash receipts from cotton lint at \$2,400 million would be 17 percent above 1955-57, with the increase in production more than offsetting the decline in prices received.

TOBACCO

Since tobacco is the only crop for which continued acreage controls are assumed, harvested acreages are projected by holding constant present acreage allotments except where increases appear necessary. Continuation of uptrends in yields is projected.

By 1965, projected production would be 2,120 million pounds, about 5 percent above 1955-57. Domestic disappearance was projected on the basis of estimates of increased population and data on proportions of smokers and smoking rates. On this basis, domestic disappearance of the two leading types of tobacco, flue-cured and burley, is projected at levels 20 and 12 percent respectively above 1955-57. Exports are projected at levels somewhat above present levels. No satisfactory elasticity measures have been developed for tobacco exports and the projected exports are based largely on informed judgment.

The tobacco price projections are on the basis of statistical relationships, relating season average prices to volume of production and the support price level with a projected support level of 52 cents per pound for both flue-cured and burley. The projected price for flue-cured for 1965 is 54 cents per pound, compared with 53.2 cents for 1955-57. For burley, the prices are 56 for 1965 and 60.8 for 1955-57.

Cash receipts from tobacco for 1965 are projected at \$1,149 million, a little above the \$1,119 million of 1955-57.

OILSEED CROPS

By 1965, harvested acreage of soybeans is projected at 27.1 million, 36 percent above 1955-57. Yields per harvested acre would continue their upward trend, and at 24 bushels in 1965 would be about 10 percent above the average. Production is projected to reach 650 million bushels, 49 percent above 1955-57.

Exports of soybeans as beans by 1965 would be around 145 million bushels. Including bean equivalent of oil exports, exports could reach 250 million bushels. This would be an increase of 54 percent from 1955-57.

The projected price consistent with these production figures and projected prices of corn is \$1.60 per bushel, 26 percent below 1955-57.

Despite lower prices, the projected larger production would result in cash receipts reaching \$1,008 million by 1965, 14 percent higher than 1955-57.

The increase in production of cotton lint would, of course, be accompanied by a similar increase in production of cottonseed and prices would be over a third lower than 1955-57.

Flaxseed production is projected at 28 million bushels, 10 million less than in 1955-57. The projected flaxseed price is \$2.50 per bushel, about 15 percent below 1955-57.

In the absence of controls, acreage and production of peanuts are projected to increase, with production reaching 1,875 million pounds by 1965. This would be 22 percent above 1955-57. Prices received are projected at 6 cents per pound, 46 percent below 1955-57.

RICE

With the removal of acreage allotments, acreage of rice would increase sharply in 1960 and then gradually decline. By 1965, the acreage at 1.6 million would be about the same as in 1955-57.

With the increase in acreage, yields are projected to decline to about 2,900 pounds per acre in 1960. Yields are projected to increase as acreage declines and by 1965, the yield of 3,300 pounds per acre would be about the same as in 1958-59 and about 5 percent higher than 1955-57.

Production would increase sharply to 64 million hundredweight in 1960 and then decline to 53 million hundredweight by 1965. This 1965 figure would be about 7 percent above 1955-57.

The projected price received of \$3 per hundredweight is consistent with world price levels, but is 39 percent below 1955-57.

Exports at this price level would increase sharply and at 30 million hundredweight in 1965 would be 21 percent above the 1955-57 average.

Domestic disappearance is projected to increase about in line with the increase in population.

OTHER CROPS

No attempt was made to project detailed data for individual commodities in the groups not directly affected by the changed conditions assumed here. However, general trends in production, prices, and cash receipts for groups such as fruits and vegetables were assumed to continue during the projection period. This was done to permit

the calculation of summary measures of total farm output, prices received, and cash receipts.

GENERAL COMMENTS AND LIMITATIONS

A few explanatory statements are in order which will help the reader view the preceding analysis in its proper perspective.

It should be reemphasized that these are not forecasts but projections of probable agricultural output and prices under a set of specific assumptions. The two key assumptions—no acreage controls and price supports at levels which would permit liquidation of excessive stocks over a 7- to 10-year period—were specified in Senator Ellender's request for the material.

It is worth noting that although the conditions assumed for these projections represent a situation much closer to a free market economy than that now in effect, a number of measures which are assumed to remain in effect do constitute departures in some degree from a free market situation. In this category are the conservation reserve, Wool Act, Sugar Act, Public Law 480, marketing agreements and orders, acreage controls on tobacco, etc.

In the preparation of these projections, the information available to the Department on average statistical relationships between supply, prices, and consumption and long-time trends has been used. However, many of the important relationships are highly complex and our knowledge concerning them is by no means perfect. Consequently, the completion of these projections required the use of a substantial amount of judgment.

These projections provide consistent information on the general trends and relationships which might be expected to prevail under the assumed conditions. Within the framework of the key assumptions, the general direction of the changes indicated by the projections is accurate. The magnitude of the changes, particularly those for individual commodities, may well be subject to rather sizable errors. In fact, many of these data might well have been presented as ranges rather than as single figures. There are two reasons why this was not done. In the first place, the magnitude of the possible errors is unknown. In the second place, even if the errors were known, to have presented ranges for such a large set of interrelated figures would have resulted in such a mass of figures that the results would have been virtually incomprehensible.

It is significant that the general aggregates—farm output, prices received, and cash receipts—would not be greatly changed even by fairly substantial changes for some of the individual commodities.

In general, the projections have been compared to averages for 1955-57, rather than to 1958 or 1959 data. Farm output, prices received, and cash receipts in 1958 were all influenced by a number of unusual factors which make that year unsuitable as the primary basis of comparison. The fact that data for 1959 were preliminary and incomplete at the time when the bulk of the work was done on these projections severely limited the usefulness of data for that year as a basis of comparisons. Since the projections necessarily assume average weather conditions, an average of 3 recent years provides a better basis of comparison than any single year.

In the latter part of the period covered by these projections, livestock numbers are quite high, relative to available supplies of forage. However, supplies of feed grains are still quite ample and it has been assumed that feed concentrates could be substituted for forage to at least a limited extent if this were necessary. The projected feed available in terms of total feed units would remain slightly higher than the projected needs.

There are a large number of different assumptions that could have been made at various points in the preparation of these projections. While it is not possible to analyze the effects of all of these, a brief discussion of the general effect of different assumptions regarding the conservation reserve and the liquidation of excess stocks of feed grains and wheat has been requested.

The assumed conservation reserve of 30 million acres is of approximately the size that could be financed with present appropriations and it has an important influence on the projected production and price levels. However, it has been estimated that it would be necessary to shift something like 50 million acres of plowland out of production if the conservation reserve approach were used to bring present agricultural production and demand into balance. The 50 million acres might vary as much as 20 percent up or down, depending upon the type of land taken out and the type of program used.²

The assumption with respect to liquidation of excessive stocks results in the projected withdrawal of 7 million tons of feed grain stocks annually throughout the projection period. In addition, by 1965, it would be necessary to feed about 9.8 million tons of wheat more than current rates of wheat feeding. This level of wheat feeding plus the projected high level of exports is required to move the projected production of wheat and permit the assumed liquidation of wheat stocks. This total of 16.8 million tons of grain fed at the projected feeding rate of 0.84 tons per grain consuming animal unit would provide the feed for 20 million animal units or 10 percent of the projected number of animal units fed in 1965.

If it were assumed that there were no liquidation of grain, including wheat stocks during the projection period, then there would be a reduction of about 10 percent in the number of grain consuming animal units fed. Consequently, there would be smaller livestock output, increased livestock prices, and a rise of around 10 percent in cash receipts for livestock and livestock products. With a reduction in the amount of grain fed, prices received by farmers for feed grains would be about 25 percent higher. Since production and sales of feed grains would be unchanged, cash receipts from feed grains would also be increased by about 25 percent. Wheat prices are related to feed grains in these projections and there would be an increase of 20 cent or so in prices of wheat. The projected cash receipts figure for 1956 under these conditions would be about \$2 billion or 7 percent higher than the \$30.6 billion projected under the primary assumptions of this request.

It should be noted that this discussion assumes a situation in which all the assumptions in the primary analysis except that with respect to liquidation of excessive stocks remain in effect. The 30-million-acre

² "The Conservation Reserve," by T. Carrol Bottum. Proceedings of the Iowa State College Feed Livestock Workshop, Special Report 24, Center for Agricultural Adjustment, Iowa State College, Ames Iowa, 1959.

conservation reserve and Public Law 480 account for more grain than the assumed stock liquidation.

The projection period is not long enough to permit all the necessary adjustments to the changed income and price conditions to work themselves through the agricultural system. From what has just been said about the effect of liquidation of stocks of feed grains and wheat, it is clear that these projections do not represent a situation in which agricultural production is in a fairly stable relationship. A similar situation exists with respect to adjustments in acreages of some of the major crops and of cropland and pasture acreage. We are not, however, in a position to indicate with any useful degree of precision the length of time that would be required to complete the adjustments or their magnitude.

The statement about the "fairly stable relationship" above is not intended to imply such a relationship in a completely free-market economy. It is made only within the context of the assumptions used in the projections. Several of the programs assumed in effect for these projections do constitute departures from a free market. This is particularly true of the 30-million-acre conservation reserve and the Public Law 480 program assumptions.

One point in connection with these projections which will be of interest to technicians is the price and income elasticities implied by the projections.

Since the projected increase in per capita food consumption is almost entirely in meat, figures are given for meat, for all livestock products, and for all food.

Comparing 1965 with 1955-57, we have the following:

Commodity	Proportional changes in—		
	Per capita consumption	Per capita income	Farmers' prices
Meats, including poultry-----	0.15	0.22	-0.15
All livestock products-----	.075	.22	-.15
All food-----	.05	.22	-.17

These numbers are consistent with the following pairs of elasticities in terms of prices received by farmers:

Meats, including poultry:
 Income elasticity -- $\left\{ \begin{array}{c} 0.0 \\ -1.0 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.2 \\ -0.69 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.3 \\ -0.54 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.4 \\ -0.39 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.65 \\ 0.0 \end{array} \right\}$
 Price elasticity ----
 All livestock products:
 Income elasticity ----- $\left\{ \begin{array}{c} 0.0 \\ -0.5 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.2 \\ -0.19 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.33 \\ 0.0 \end{array} \right\}$
 Price elasticity -----
 All food:
 Income elasticity -- $\left\{ \begin{array}{c} 0.0 \\ -0.29 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.1 \\ -0.16 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.2 \\ -0.02 \end{array} \right\}$ or $\left\{ \begin{array}{c} 0.22 \\ 0.0 \end{array} \right\}$
 Price elasticity ----

The projected increase in per capita food consumption does not account for all of the increase in marketings of farm products implied by the projections.

It has been estimated that in the 1955-57 period somewhere around 7 percent of total farm marketings were diverted from the operation of normal marketing system by price support and surplus disposal operations. Grains and cotton accounted for the bulk of the diversion although there was some diversion of oilseeds, tobacco, and dairy products. Within the framework of our assumptions, this diverted amount would be in addition to the marketings which would result from the increase in output projected here.

An increase of 55 percent in domestic consumption of cotton; sharp increases in exports of feed and food grains; cotton, and oilseeds (facilitated in part by Public Law 480); and increased utilization feed grains by livestock are factors which along with the projected increase in per capita food consumption, provide an outlet of the projected increased marketings.

TABLE 1.—Cash receipts, index of farm output, index of prices received by farmers, and acreage under Ellender assumptions, 1960-65, with comparisons

Item	Unit	Average, 1955-57	1958	1959 ¹	1960	1961	1962	1963	1964	1965
Cash receipts:										
Livestock.....	Billion dollars.	16.5	19.3	² 18.5	18.3	17.9	17.7	17.5	17.6	17.7
Crops.....	do.....	13.5	14.3	² 14.2	12.1	12.2	12.3	12.5	12.8	12.9
Total.....	do.....	30.0	33.6	² 32.7	30.4	30.1	30.0	30.0	30.4	30.6
Index of prices received by farmers:										
All farm products.....	} 1910-14=100.	232	250	240	215	206	202	196	195	193
Livestock.....		235	273	-----	240	224	216	205	201	200
Crops.....		230	223	-----	186	185	186	185	188	184
Index of farm output:										
All farm products.....	} 1947-49=100.	114	124	125	125	128	130	132	134	137
Livestock.....		121	125	128	131	137	141	145	149	151
Crops.....		106	118	118	116	117	118	120	121	123
Acreage:										
Planted.....	Million.....	344	330	340	338	337	334	333	333	333
Soil bank.....	do.....	14	27	22	30	30	30	30	30	30
Total.....	do.....	358	357	362	368	367	364	363	363	363
Per capita food consumption:										
Total.....	} 1947-49=100.	103	101	103	103	105	106	106	108	108
Livestock products.....		106	103	106	107	110	112	112	114	114
Crops.....		99	99	100	99	99	99	99	99	99

¹ Estimated as of November 1959.

² Average of 1st 3 quarters of 1959, seasonally adjusted.

TABLE 2.—Recent and projected uses of cropland and pasture ¹

[In millions of acres]

Land use	1949	1954	1957	1958	1959	Pro- jected, 1960	Pro- jected, 1965
Cropland:							
Total cropland harvested.....	352	338	319	321	325	324	319
Crop failures.....	9	13	12	8	11	13	13
Summer fallow.....	26	29	23	23	21	20	22
Soil bank.....			28	27	22	30	30
Total land used for crops and soil bank....	387	380	382	379	379	387	384
Soil improvement and idle.....	22	19	22	25	25	17	20
Cropland pasture.....	69	66	66	66	66	66	66
Total cropland available.....	478	465	470	470	470	470	470
Pasture.....	69	66	66	66	66	66	66
Open permanent.....	416	460	460	460	460	460	460
Woodland pasture.....	135	121	120	115	115	115	115
Pasture and grazing land not in farms....	400	353	350	320	320	320	320
Total pasture and grazing land.....	1,020	1,000	996	961	961	961	961
Cropland and pasture total.....	1,429	1,399	1,400	1,365	1,365	1,365	1,365

¹ Planted, harvested and failure acreage are from "Crop Production," July 10, 1959, AMS-USDA and "Changes in Farm Production and Efficiency," ARS, USDA, Stat. Bull. No. 233, August 1958 and unpublished data for 1958 and 1959. Acres in soil bank from CSS reports. Other data for 1949 and 1954 mainly from "Supplement to Major Uses of Land in the United States," USDA Tech. Bul. No. 1082, September 1953 and "Major Uses of Land in the United States," Agr. Inf. Bull. No. 168, ARS, USDA, January 1957, both by H. H. Wooten and J. R. Anderson.

TABLE 3.—Acreage planted: Projections based on Ellender assumptions, 1960-65, with comparisons

[In millions of acres]

Crops	Average 1955-57	1958	1959	1960	1961	1962	1963	1964	1965
Corn.....	77.8	74.7	85.4	82.5	81.5	80.0	80.0	80.0	80.0
Oats.....	44.9	38.4	36.3	33.0	33.0	32.5	32.5	32.5	32.5
Barley.....	15.9	16.3	17.0	13.0	13.0	12.0	11.5	11.5	11.5
Grain sorghums.....	24.2	21.2	19.7	16.0	16.0	16.0	15.5	15.5	15.5
Total feed grains.....	162.8	150.6	158.4	144.5	143.5	140.5	139.5	139.5	139.5
Wheat.....	56.3	56.4	58.8	64.0	63.5	63.0	62.5	62.0	61.0
Rice ¹	1.6	1.4	1.6	2.2	2.1	1.9	1.8	1.7	1.6
Cotton.....	16.5	12.4	15.9	18.7	18.7	19.0	19.4	19.0	20.0
Soybeans ¹	20.0	23.8	22.0	25.1	25.6	26.0	26.3	26.8	27.1
Peanuts ¹	1.5	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9
Tobacco ¹	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Hay ¹	74.0	73.0	71.0	72.0	72.0	72.0	72.0	72.0	72.0
Total items shown.....	334.0	320.2	330.4	329.3	328.2	325.3	324.4	324.0	324.3
Total planted, 59 crops.....	344.2	330.4	339.6	338.3	337.2	334.3	333.4	333.0	333.3
Soil bank.....	13.8	27.0	22.4	30.0	30.0	30.0	30.0	30.0	30.0
Total acreage.....	358.0	357.4	362.0	368.3	367.2	364.3	363.4	363.0	363.3

¹ Acreage harvested.

TABLE 4.—*Acreage harvested—Projections based on Ellender assumptions, 1960-65, with comparisons*

[In millions of acres]

Crops	Average 1955-57	1958	1959	1960	1961	1962	1963	1964	1965
Corn.....	75.9	73.5	84.4	81.0	80.0	78.5	78.5	78.5	78.5
Oats.....	35.9	31.8	28.8	27.0	27.0	26.5	26.5	26.5	26.5
Barley.....	14.2	14.9	15.1	11.5	11.5	10.5	10.0	10.0	10.0
Grain sorghums.....	13.9	16.8	16.0	11.0	11.0	11.0	10.5	10.5	10.5
Total feed grains.....	139.9	137.0	144.3	130.5	129.5	126.5	125.5	125.5	125.5
Wheat.....	47.0	53.6	53.2	57.0	56.7	56.1	55.8	55.1	54.3
Rice.....	1.6	1.4	1.6	2.2	2.1	1.9	1.8	1.7	1.6
Cotton.....	15.4	11.8	15.0	18.0	18.0	18.2	18.6	18.2	19.2
Soybeans.....	20.0	23.8	22.0	25.1	25.6	26.0	26.3	26.8	27.1
Peanuts.....	1.5	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9
Tobacco.....	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Hay.....	74.0	73.0	71.0	72.0	72.0	72.0	72.0	72.0	72.0
Total items shown.....	300.7	303.2	309.8	307.6	306.7	303.6	302.9	302.3	302.8
Total 59 crops harvested ¹	323.4	321.1	325.5	323.8	322.9	319.8	391.1	318.5	319.0

¹ Obtained by deducting from 59 crops planted or grown (on table 3), 2/3 of difference between acreage planted to 11 crops shown and acreage harvested of those same crops.

TABLE 5.—*Yield per harvested acre—Projections based on Ellender assumptions, 1960-65, with comparisons*

Crop	Unit	Average 1955-57	1958	1959	1960	1961	1962	1963	1964	1965
Corn.....	Bushel.....	44.5	51.7	52.2	49.0	49.4	49.8	50.2	50.6	51.0
Oats.....	do.....	36.8	44.7	37.3	37.5	37.8	38.1	38.4	38.7	39.0
Barley.....	do.....	28.6	31.6	27.1	29.5	30.0	30.5	31.0	31.5	32.0
Grain sorghums.....	do.....	23.3	36.7	36.9	29.5	30.0	30.5	31.0	31.5	32.0
Wheat.....	do.....	20.6	27.3	21.0	21.0	21.4	21.8	22.2	22.6	23.0
Rice.....	Pound.....	3,139	3,309	3,352	2,900	2,950	3,000	3,100	3,200	3,300
Cotton.....	do.....	405	466	474	445	452	459	466	473	480
Soybeans.....	Bushel.....	21.7	24.2	24.0	22.5	22.8	23.1	23.4	23.7	24.0
Tobacco:										
Flue-cured.....	do.....	1,531	1,690	1,548	1,590	1,615	1,640	1,665	1,690	1,715
Burley.....	do.....	1,580	1,567	1,653	1,615	1,640	1,665	1,690	1,715	1,740
Hay.....	Ton.....	1.54	1.67	1.60	1.60	1.62	1.64	1.66	1.68	1.70

TABLE 6.—*Production—Projections based on Ellender assumptions, 1960-65, with comparisons*

Commodity	Unit	Average 1955-57	1958	1959 ¹	1960	1961	1962	1963	1964	1965
Livestock:										
Cattle and calves.....	Million pounds.....	27,521	27,698	28,100	29,100	30,400	31,800	33,200	34,400	34,700
Hogs.....	do.....	19,125	19,421	21,200	21,600	23,800	24,200	24,600	25,200	25,700
Milk.....	Billion pounds.....	124.8	125.2	124.7	127.0	129.0	132.0	135.0	138.0	140.0
Eggs.....	Million dozen.....	5,022	5,057	5,300	5,267	5,537	5,635	5,733	5,848	5,960
Broilers.....	Million pounds.....	4,101	5,431	5,511	5,758	5,923	6,070	6,188	6,269	6,434
Crops:										
Corn.....	Million bushels.....	3,369	3,800	4,402	3,970	3,950	3,910	3,940	3,970	4,000
Oats.....	do.....	1,322	1,422	1,075	1,010	1,020	1,010	1,020	1,025	1,035
Barley.....	do.....	405	470	408	340	345	320	310	315	320
Grain sorghums.....	do.....	338	615	589	325	330	335	325	330	335
Total.....	Million tons.....	134.7	157.7	166.7	144.6	144.4	142.7	143.2	144.4	145.6
Wheat.....	Million bushels.....	963	1,462	1,117	1,197	1,213	1,222	1,238	1,246	1,250
Rice.....	Million hundred-weight.....	49.4	47.0	53.1	63.8	62.0	57.0	55.8	54.4	52.8
Cotton.....	Million bales.....	13.0	11.5	14.8	16.6	16.9	17.4	18.1	17.9	19.2
Soybeans.....	Million bushels.....	436	574	528	565	585	600	615	635	650
Peanuts.....	Million pounds.....	1,531	1,836	1,656	1,575	1,625	1,685	1,750	1,810	1,875
Tobacco, all.....	do.....	2,012	1,736	1,800	1,815	1,850	1,870	1,960	2,060	2,120
Flue-cured.....	do.....	1,294	1,081	1,080	1,110	1,130	1,150	1,225	1,320	1,340
Burley.....	do.....	488	466	497	490	500	505	515	520	555

¹ Estimated as of November 1959.

TABLE 7.—Prices received by farmers—Projections based on Ellender assumptions, 1960-65, with comparisons

Commodity	Unit	Average, 1955-57	1958	1960	1961	1962	1963	1964	1965
Livestock:									
Cattle.....	Dollars per hundred weight	15.90	21.90	20.00	19.00	17.50	15.50	15.00	15.00
Hogs.....	do.....	15.70	19.60	12.80	11.20	11.20	11.20	11.20	11.20
Milk, wholesale.....	do.....	4.12	4.12	3.65	3.65	3.60	3.60	3.60	3.60
Butterfat.....	Cents per pound.....	59.2	58.5	65.0	65.0	65.0	65.0	64.0	64.0
Eggs.....	Cents per dozen.....	37.8	38.3	38.0	31.0	30.0	29.5	29.0	29.0
Broilers.....	Cents per pound.....	21.2	18.5	17.5	16.0	15.5	15.5	15.0	15.0
Crops:									
Corn.....	Dollars per bushel.....	1.25	1.11	.80	.80	.80	.80	.80	.80
Oats.....	do.....	.66	.58	.42	.42	.42	.42	.42	.42
Barley.....	do.....	.95	.89	.64	.64	.64	.64	.64	.64
Sorghum grain.....	Dollars per hundred weight	1.93	1.75	1.25	1.25	1.25	1.25	1.25	1.25
Wheat.....	Dollars per bushel.....	1.96	1.72	1.00	.90	.90	.90	.90	.90
Rice.....	Dollars per hundred weight	4.93	4.81	3.00	3.00	3.00	3.00	3.00	3.00
Cotton.....	Cents per pound.....	31.22	33.10	24.50	25.00	26.00	25.00	27.50	25.00
Soybeans.....	Dollars per bushel.....	2.16	2.00	1.60	1.60	1.60	1.60	1.60	1.60
Peanuts.....	Cents per pound.....	11.1	10.6	6.0	6.0	6.0	6.0	6.0	6.0
Cottonseed.....	Dollars per ton.....	49.70	43.80	35.00	34.00	33.00	32.00	32.00	31.00
Tobacco, all.....	Cents per pound.....	54.3	59.5	55.5	55.8	56.1	55.3	54.5	54.2
Flue-cured.....	do.....	53.2	58.2	56.0	56.0	56.0	55.0	54.0	54.0
Burley.....	do.....	60.8	66.1	58.0	58.0	58.0	57.0	57.0	56.0

TABLE 8.—Cash receipts—Projections based on Ellender assumptions, 1960-65, with comparisons

[In millions of dollars]

Commodity	Average, 1955-57	1958	1959 ¹	1960	1961	1962	1963	1964	1965
Livestock:									
Cattle and calves.....	5,500	7,403	-----	7,350	7,240	7,020	6,620	6,475	6,390
Hogs.....	2,809	3,416	-----	2,700	2,610	2,650	2,710	2,750	2,810
Milk, wholesale.....	3,906	4,094	-----	3,778	3,869	3,938	4,075	4,194	4,280
Eggs.....	1,723	1,770	-----	1,838	1,586	1,567	1,574	1,583	1,619
Broilers.....	856	1,002	-----	1,008	948	941	959	940	965
Total livestock and products.....	16,518	19,301	18,500	18,304	17,857	17,728	17,543	17,553	17,679
Crops:									
Corn.....	1,489	1,479	-----	1,112	1,104	1,096	1,104	1,112	1,120
Other feed grains.....	682	956	-----	429	438	422	419	425	427
Total feed grains.....	2,171	2,435	-----	1,541	1,542	1,518	1,523	1,537	1,547
Wheat.....	1,740	2,253	-----	1,100	982	960	978	977	976
Rice.....	241	233	-----	188	183	168	164	161	156
Cotton.....	2,049	1,928	-----	2,034	2,112	2,262	2,262	2,461	2,400
Soybeans.....	883	1,117	-----	872	904	928	952	984	1,008
Peanuts.....	160	203	-----	94	98	101	105	109	112
Tobacco, all.....	1,119	1,007	-----	1,007	1,032	1,049	1,084	1,123	1,149
Flue-cured.....	685	629	-----	616	633	644	674	713	724
Burley.....	321	294	-----	284	290	293	294	296	311
Total all crops.....	13,463	14,259	14,200	12,113	12,166	12,346	12,510	12,850	12,911
Total items shown.....	23,157	26,861	-----	23,510	23,106	23,102	23,006	23,294	23,412
All commodities.....	29,981	33,560	32,700	30,417	30,023	30,074	30,053	30,403	30,590

¹ Average of first 3 quarters seasonally adjusted.

TABLE 9.—*Exports and year-end carryover; projections based on Ellender assumptions, 1960-65 with comparisons*

Item	Unit	Average 1955-57	1958	1959	1960	1961	1962	1963	1964	1965
Exports:										
Feed grains.....	Million tons.....	8.6	12.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
Wheat.....	Million bushels.....	433	443	410	450	475	500	525	550	550
Rice.....	Million hundredweight..	24.8	19.7	29.0	32.0	30.0	30.0	30.0	30.0	30.0
Cotton.....	Million bales.....	5.2	2.8	5.5	5.6	5.6	5.7	6.0	5.7	6.3
Soybeans ¹	Million bushels.....	162	198	190	205	215	225	235	24.0	250
Tobacco:										
Flue-cured.....	Million pounds.....	487	443	435	455	455	460	460	465	465
Burley.....	do.....	30	34	---	36	37	38	39	40	41
Carryover:										
Feed grains.....	Million tons.....	50.4	68.0	80.0	73.0	66.0	59.0	52.0	45.0	38.0
Wheat.....	Million bushels.....	941	1,277	1,365	1,453	1,412	1,212	1,007	736	444
Rice.....	Million hundredweight..	24.3	15.7	13.6	16.8	21.0	198	17.1	12.6	6.1
Cotton.....	Million bales.....	11.5	8.9	8.9	8.7	8.4	8.1	7.8	7.5	7.2
Soybeans.....	Million bushels.....	12	62	35	30	30	30	25	25	25
Tobacco:										
Flue-cured.....	Million pounds.....	2,359	2,210	2,155	2,013	1,888	1,762	1,694	1,700	1,711
Burley.....	do.....	1,295	1,237	1,200	1,185	1,149	1,108	1,067	1,020	999

¹ Including bean equivalent of oil.TABLE 10.—*Per capita consumption of livestock products based on Ellender projections, 1960-65 with comparisons*

Item	Unit	1955-57	1958	1959 ¹	1960	1961	1962	1963	1964	1965
Beef and veal.....	Pound.....	93.2	87.2	86.8	89	93	96	98	103	103
Pork.....	do.....	65.2	60.7	67.0	69	75	75	75	75	75
Lamb and mutton.....	do.....	4.4	4.1	4.5	4.4	4.4	4.4	4.4	4.4	4.4
Total red meat.....	do.....	162.8	152.0	158.3	162.4	172.4	175.4	177.4	182.4	182.4
Chicken.....	do.....	23.8	28.3	29.8	29.0	29.8	30.0	30.2	30.4	30.5
Turkeys.....	do.....	5.4	5.8	6.0	6.1	6.3	6.3	6.3	6.4	6.4
Total poultry meat.....	do.....	29.2	34.1	35.8	35.1	36.1	36.3	36.5	36.8	36.9
Total all meat.....	do.....	192.0	186.1	194.1	197.5	208.5	211.7	213.9	219.2	219.3
Eggs.....	Number.....	366	349	354	342	353	353	353	353	353
Dairy products (total milk).	Pound.....	701	692	687	690	690	697	697	704	704

¹ Preliminary.

LETTER FROM CHAIRMAN OF ADVISORY COMMITTEE

THE UNIVERSITY OF WISCONSIN,
COLLEGE OF AGRICULTURE,
Madison, January 6, 1960.

Mr. HENRY CASSO,
Staff Economist, Senate Committee on Agriculture and Forestry,
Senate Office Building, Washington, D.C.

DEAR MR. CASSO: It is with considerable pleasure that I submit to Senator Ellender through you a statement prepared by the advisory committee of the IRM-1 research committee on national policies for agricultural prices and income. This statement has been developed in connection with our advisory activities with Dr. Walter Wilcox and the technical staff of the U.S. Department of Agriculture as the Department staff was preparing an answer to the request of Senator Ellender in his letter dated May 18, 1959. Members of the IRM-1 advisory committee from the land-grant colleges were as follows: George E. Brandow, Pennsylvania; Willard W. Cochrane, Minnesota; Harlow W. Halvorson, Wisconsin; Maurice M. Kelso, Arizona; James S. Plaxico, Oklahoma; and John A. Schnittker, Kansas.

Members of the advisory committee have concluded that there will be widespread interest in the report of the Department of Agriculture among students of the economic problems of agriculture and particularly those concerned with the impact of the price support programs on agriculture. Because of this probable widespread interest we feel it would be desirable for such persons to have easy access to this report. It is our understanding that Senate documents are filed in depository libraries. In our view such an arrangement would be very desirable for this report. If you think it appropriate would you kindly indicate our interest in this matter to Senator Ellender.

It has been a pleasure to work with you, Dr. Wilcox and the staff of the U.S. Department of Agriculture, and I am sure we of IRM-1 have benefited greatly from this participation.

Sincerely yours,

HARLOW W. HALVORSON, *Chairman, IRM-1.*

STATEMENT BY THE ADVISORY COMMITTEE¹

The report prepared by the staff of the U.S. Department of Agriculture is a thorough and comprehensive analysis of the important question raised by Senator Ellender. In view of the uncertainty of the future it is not possible to make projections of the requested kind with a high degree of precision. Further, the projected price and income levels are so far outside the range of recent experience that it is difficult to predict how farmers might react to these difficult conditions. In spite of these difficulties it is evident that care has been exercised in bringing together all available information in working out the numerous details.

Members of the committee, however, have certain reservations about the estimates and implied relationships projected through 1965. The generally high level of exports, especially of wheat and cotton, will be difficult to achieve, even with considerable use of Public Law 480 funds. The expected domestic consumption of cotton appears high and production somewhat low at the 1965 farm price. The projected volume of hogs might well depress farm prices by more than the indicated amount. For these reasons, among others, the committee believes that the average level of farm prices in the Department report is somewhat higher than is consistent with the projected volume of total farm marketings in 1965.

But if the prices and quantities estimated by the Department technicians should obtain under the conditions specified, cash income from farm marketings in the period 1960-65 would be expected to total about the same as in 1955-57 or \$30.6 billion a year. This level of cash receipts from farm marketings would be maintained in spite of a sharp drop in market prices because of continued annual increases in farm production of about 2 percent a year.

Farmers in 1965 would be producing about 20 percent more products than in 1955-57. The effect of lower farm prices on output is expected to be minor because of the continued profitability for the individual farmer of marginal increases in presently available output increasing techniques.

Under these conditions the larger marketings would result in U.S. average farm prices of about 80 cents a bushel for corn with other feed grain prices in proportion, 90 cents a bushel for wheat, \$3 per 100 pounds for rice, 25 cents a pound for cotton, \$15 per 100 pounds for beef cattle (\$22 per hundred for choice, grain-fattened steers in Chicago), \$11.20 per 100 pounds for hogs, \$3.60 per 100 pounds for milk at wholesale, 29 cents a dozen for eggs and 15 cents a pound for broilers.

Under the Department of Agriculture's projections carryover stocks would be reduced as follows: Feed grains, from 80 million tons in 1959 to 38 million in 1965; wheat, from 1.4 billion bushels to 0.4 billion; and cotton from 8.9 million to 7.2 million bales.

The bulk of these carryover stocks would continue to be in Government ownership and storage. Carryovers are shown in table 9.

¹ Professors Halvorson, Wisconsin, chairman; George Brandow, Pennsylvania; Willard Cochrane, Minnesota; Maurice Kelso, Arizona; James Plaxico, Oklahoma; and John Schnittker, Kansas.

NET INCOME

Since the Department of Agriculture was not asked to estimate effects on net farm income, the Committee undertook this analysis. Production expenses would be expected to be higher in 1965 than in 1955-57 because (a) the report assumes further increases in fertilization and other means of increasing output, and (b) the parity index in 1955-57, at 280, was lower than the level assumed for the report, 300. Production expenses in 1959 already were \$3.4 billion higher than in 1955-57, and are expected to continue to increase about 1 percent a year even though nonfarm prices stabilize at present levels. Although the larger volume of marketings would maintain cash receipts at the 1955-57 level in spite of lower prices, realized net farm income would drop from \$11.5 billion in the earlier period to about \$7 billion in 1965 because of higher production expenses. This is a reduction of almost 40 percent.

The reduction in realized net income would be borne largely by the 2.1 million farms which market 90 percent of all farm products. The number of these farms held constant at 2.1 million between 1944 and 1954; hence, only a small reduction in numbers is expected in the 1960-65 period. Also, the off-farm income of families on these farms increased at a rate of only \$60 per family per year in 1952-56. Therefore, little hope can be held out that increases in off-farm income would be an important offset to declining farm income for these families in the 1960-65 period.

The expected net farm income of \$7 billion in the 1960-65 period is based on a continuation of the sugar and wool programs making direct payments to farmers of \$120 to \$130 million a year, agricultural conservation program payments of \$225 million a year, and conservation reserve program payments of \$300 to \$325 million.

In addition, in these projections, cash receipts from farm marketings are supported by surplus removal purchases under section 32, marketing agreement programs, and a continuation of Public Law 480 exports at about present dollar levels.

APPLICATION TO SPECIFIC FARMING SITUATIONS

Estimates prepared by the members of the Land-Grant College Advisory Committee and their associates applying the Department of Agriculture's projections to specific farming situations indicate the following:

WHEAT

Specialized wheat producers would be affected most adversely. A southern plains winter wheat farm with 335 acres of cropland which in 1955-57 produced 200 acres of wheat, 80 acres of sorghum grain, and 55 acres of other crops, under the conditions outlined above would be expected to increase its wheat acreage 30 percent and reduce its acreage of other crops. Because of the lower prices, however, gross cash receipts would drop by one third and net cash receipts by about 60 percent.

A wheat-fallow farm in the Pacific Northwest with 935 acres of cropland in 1955-57 producing 300 acres of wheat and 150 acres of feed crops, under the 1960-65 conditions outlined above would increase wheat production to about 400 acres and decrease feed grain produc-

tion. However, the lower prices would cause a 40-percent drop in gross cash receipts and a drop in net cash receipts of about 75 percent.

COTTON

Cotton producers would be less adversely affected than wheat producers. A San Joaquin Valley, Calif., irrigated cotton farm with 1,045 acres of cropland in 1955-57 which produced 365 acres of cotton, 329 acres of alfalfa, and 280 acres of feed grains with 68 acres fallow, would find it desirable under the 1960-65 price conditions to produce 500 acres of cotton, 350 acres of alfalfa, and 142 acres of feed grains.

Gross cash receipts would be maintained at 1955-57 levels by this shift in acreages and by increases in acre yields. However, without any change in nonfarm prices, production expenses would be increased 10 to 15 percent and net cash receipts would be about 20 percent lower than in 1955-57.

A specialized dryland cotton-wheat farm on the rolling plains of Texas and Oklahoma, with 1,000 acres of cropland in 1955-57, planted about 140 acres of cotton, 480 acres of wheat, and 345 acres of other small grains. Without any change in total acreage under the projected 1960-65 prices, 533 acres would be planted to cotton, wheat would be reduced to 220 acres, and fallow would be increased from 35 to 133 acres.

In spite of the sharp increase in cotton acreage, because of the lower prices gross cash receipts would drop about 7 percent. Increased cash expenses would cause net cash receipts to drop about 35 percent.

HOG-DAIRY

A Corn Belt farm in northern Iowa or Illinois with 100 acres of harvested crops, 42 acres of corn, 122 pigs raised, and 18 dairy cows in 1955-57, would be expected to increase feed production about 12 percent by 1965. Marketings of hogs, cattle, milk for manufacturing, and eggs would increase about 21 percent. The lower prices received for the larger marketings would cause cash receipts to decline slightly, and cash expenditures, assuming no further increase in nonfarm prices, would be 15 to 20 percent higher than in 1955-57. Under these conditions, net cash receipts would fall about 37 percent.

MILK

A 150-acre dairy farm in western Wisconsin which had 65 acres of harvested crops and 17 milking cows in 1955-57 would be expected to increase milk production by about 30 percent by 1965. Most of farm marketings consist of milk, cull dairy cows, and veal calves. Projected price declines for these products were relatively less than for hogs and the crops. The larger marketings selling at lower prices would bring an estimated 3-percent increase in cash receipts. Assuming no further increase in nonfarm prices, cash expenditures would increase by 12 percent. Under these conditions net cash farm income in 1965 would decline an estimated 13 percent. The lowered returns on nonfat solids might threaten the system of whole milk deliveries in this area and the improvements in quality which have been associated with it.

BEEF CATTLE

Beef-cattle producers generally would be least affected under these projections. A southwest cattle ranch with 145 cows and 16 sections of owned and leased land would find that lower feed prices to the feeder would narrow the margin between feeder and fed cattle prices so that the prices for his cattle would be down relatively less than the price of fed cattle. Then because the cost of feed he buys and the cost of grazing he obtains on the public range will also be lower, his net cash receipts in 1965 would be about the same as in 1955-57.







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